

TRIFEL, M.S.; SHAKHTAKHTINSKAYA, G.G.; FARKHADOV, A.A.

Interaction of cathodic protection and cement coatings. Trudy  
Gipromornefti no.1:250-259 '54. (MLRA 9:12)  
(Electrolytic corrosion) (Protective coatings)

1 Kritel A.D.

14 (5) **FEELS I BOOK EXPLOITATION** 507/1892

Восстановле сорбентах по коррозии и захватите металлов.  
Mol, Moscow, 1956

Теория и практика противокоррозионной защиты подземных сооружений (теория сорбентов) (теория и практика применения антикоррозионных средств в подземных установках); Transactions of the All-Union Conference on Corrosion and Protection of Metals, Moscow, 1958. 273 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya Nauk SSSR, Institut Fizicheskoy Khimii. Komissiya po bor'be s korrozionnyy metallor.

Editorial Board: I.M. Yerashov, Candidate of Technical Sciences; A.P. Lomov, Candidate of Chemical Sciences; Ya.K. Mikheylovskiy, Candidate of Chemical Sciences, I.V. Strizhevskiy, Candidate of Technical Sciences; M.D. Tomashov, Professor, Doctor of Chemical Sciences; and P.V. Shchigolev, Candidate of Chemical Sciences.

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Science) Insp. M.I. M.D. Tomashov, Professor, Doctor of Chemical Sciences; Ed. of Publishing House: A.L. Bankvitsker; Tech Ed.: P.S. Kabanina.

**PURPOSE:** The book is intended for chemists, engineers, and metallurgists concerned with the problem of metal corrosion in underground installations.

**COVERAGE:** The book contains the papers read at the All-Union Conference of the Committee on the Control of Corrosion of the Academy of Sciences, USSR, held in May, 1956. The following scientific and technical problems discussed at the conference received particular attention: 1) theory of metal corrosion underground (M.D. Tomashov and S.I. Kuznetsov); 2) theory, calculation, and practical application of cathodic and anodic protection of underground installations (A.P. Lomov, I.M. Yerashov, V.G. Kotik, V.V. Krasnoyarskiy, and M. Tsakum); 3) study of the anticorrosive properties and the application of technology in manufacturing and applying protective coatings to subterranean metallic installations (L. Ya. Tsibulskiy, V.I. Zinov, M.D. Benitarov, and V.S. Arsamov); 4) prevention of stray current corrosion (I.V. Strizhevskiy, J.K. Tomayevskiy, P.G. Doroshenko, and

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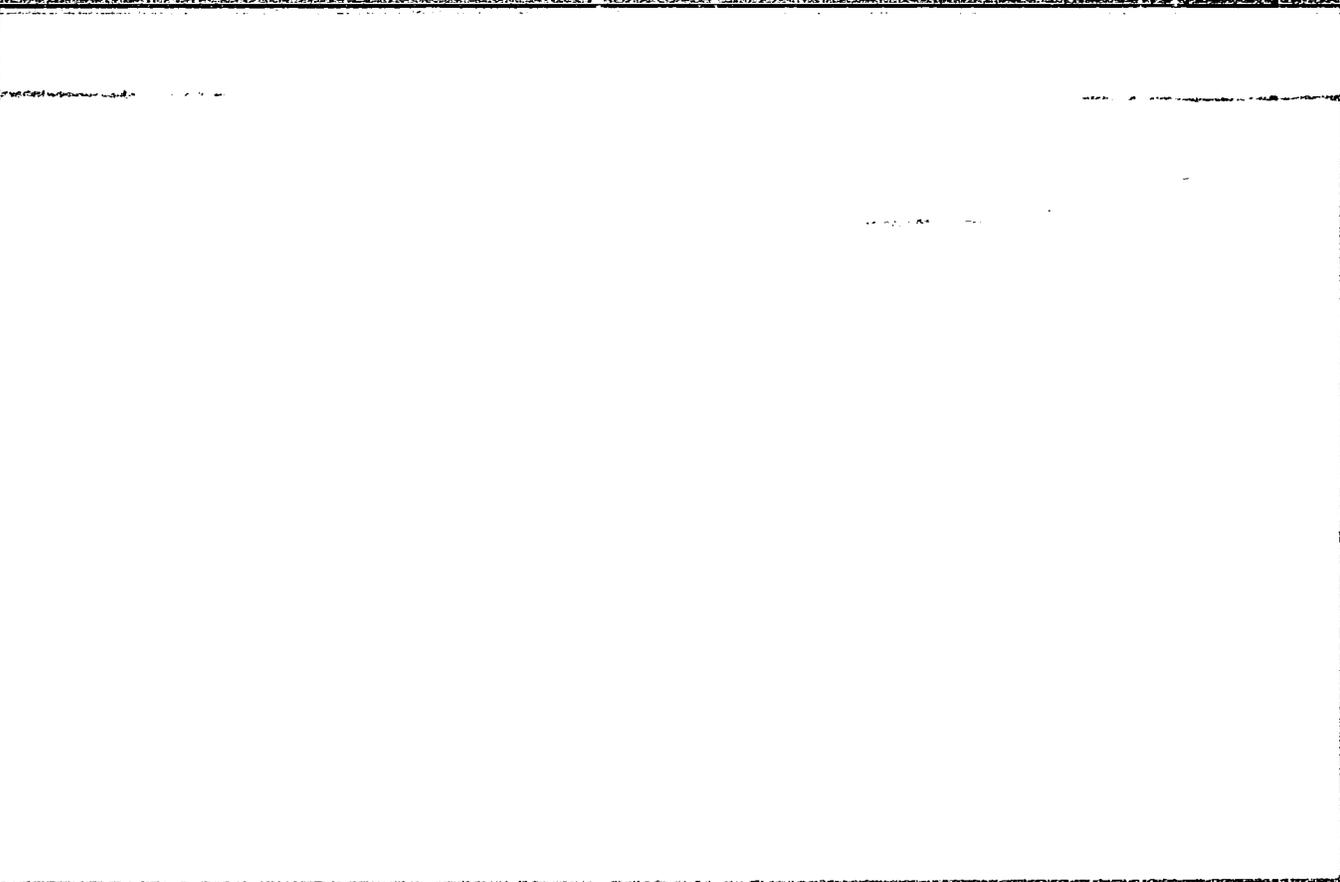
I.I. Goryubinskiy); 5) development of methods for determining the corrosion activity of soils (Ya. K. Mikheylovskiy, M.D. Tomashov, M.S. Trifol, and V.V. Krasnoyarskiy); 6) concrete examples of corrosion and protection of underground installations (S.G. Fedenkin and V.S. Arsamov, V.A. Pritula, and S.S. Popov). There are 161 references, 128 of which are Soviet, 30 English, and 3 German.

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**CIA-RDP86-00513R001756610012-2**



**APPROVED FOR RELEASE: 04/03/2001**

**CIA-RDP86-00513R001756610012-2"**

TRIFEL', M.S.; SEYFER, A.L.; SINITSINA, Yu.Ye.

Electrochemical properties of aluminum protector alloys. Izv.  
AN Azerb.SSR no.5:43-48 My '56. (MLBA 9:10)

(Aluminum alloys)

NEGREYEV, V.F.; TRIFEL', M.S.; ALLAKHVERDIYEV, A.G.

Present methods for protecting pipelines from soil corrosion.  
Azerb.neft.khoz. 36 no.1:39-41 Ja '57. (MLRA 10:5)  
(Petroleum--Pipelines) (Corrosion and anticorrosives)

SOV/26-58-12-18/44

AUTHOR: Trifell, "S., Candidate of Technical Sciences

TITLE: The Use of Plastics in Pipe Lines (Primeneniye plasticheskikh mass v truboprovodnom transporte)

PERIODICAL: Priroda, 1958, Nr 12, pp 96 - 97 (USSR)

ABSTRACT: Plastic pipes made of phenol resins with fillers of inorganic plastic materials from diverse plastic masses are excellently suited for the piping of various material due to their electric insulation and corrosion-resistant properties, in addition to light weight, less cost and easier handling. They are also useful with respect to a fast replacement of damaged units of pipe lines of other material and as a lining and covering material of such pipe lines. Complete mechanization of the application of plastic coverings to pipe lines has been achieved. This was demonstrated over an extension of over 30 km at the laying of the gas pipe line from Karadag to Severnaya GRES. The plastic film was cut into strips of 52 cm width on a turning lathe. Then glue of a solution of polyisobutylene (Molecular weight 15 to 18 thousand) in benzene or hydrocarbon lubricant, in mixture with copper naphthenate and fine-crushed bichromate - both do not change their glueing properties - was applied to the strips. Drums

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The Use of Plastics in Pipe Lines

SOV/26-58-12-18/44

of these strips were conveyed to the pipe-laying sites and the pipes covered with the glued strips by aid of standard insulation and cleaning machines. The insulation machine (photo) winds two layers of plastic strips glued to each other round the tube which was de-rusted and covered with a bitumenous ground coat by the cleaning machine. Two such pairs of machines with two pipe layers can replace 50 laborers. There is 1 photo.

ASSOCIATION: Gipromorneft' /Baku

Card 2/2

TRIFEL', M.S., kand.tekhn.nauk

Mechanized laying of protective plastic coverings on pipes. Stroi.  
truboprov. 3 no.9:7-9 S '58. (MIRA 11:12)  
(Protective coatings) (Plastics)

NEGREYEV, V.F., prof.; TRIFEL', M.S., kand. tekhn. nauk; MEKHMANDAROV, S.A.;  
inzh.; KHANLAROVA, A.G., inzh.

Increasing the effectiveness of corrosion protection of pipelines.  
Stroi. truboprov. 3 no.7:4-7 JI '58. (MIRA 12:1)  
(Protective coatings) (Pipelines)

TRIFEL', M.S., kand. tekhn. nauk

Using plastics in pipeline construction. Priroda 47 no.12:96-97  
D '58. (MIRA 11:12)

1. Gipromorneft', Baku.  
(Pipelines) (Plastics)

BLANK, A.G.; SHAKHNOVICH, Yu.B.; TRIFEL', M.S.

Periodic cathodic polarization of steel. Izv. AN Azerb. SSR. Ser.  
fiz. tekhn. i khim. nauk no.2:83-89 '59. (MIRA 12:8)  
(Steel--Corrosion)

TRIFEL', M.S.; ALEKPEROV, R.N.; MEYEROV, L.B.

New corrosion measuring high-resistance voltmeters. Gaz.prom.  
4 no.6:43-45 Je '59. (MIRA 12:8)  
(Pipelines) (Voltmeter) (Electrolytic corrosion)

TRIFEL, M. S

PHASE I BOOK EXPLOITATION

SOV/4674

Mekhmandarov, Sabir Adil ogly, Vsevolod Fedorovich Negreyev, and Mark Solomonovich Trifel'

Zashchita podvodnykh truboprovodov ot korrozii (Protection of Underwater Pipelines Against Corrosion) Baku, Azerneftneshr, 1960. 323 p. Errata slip inserted. 600 copies printed.

Ed.: A.G. Khanlarova; Ed. of Publishing House: T.B. Al'tman.

PURPOSE: This book is intended for engineering personnel engaged in the design, construction and operation of underwater pipelines and their corresponding protective installations.

COVERAGE: The book describes methods and installations used in the protection of underwater pipelines against corrosion. Data are also given on the design, construction, operation and control of electrochemical protective installations. The authors discuss the corrosion of steel pipelines in sea water, and anticorrosion protective coatings and cathode protection. Methods and techniques in laying

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Protection of Underwater Pipelines (Cont.)

SOV/4674

marine pipelines are described. The authors thank the staff and personnel of the otdel korrozii instituta "Gipromorneft'" [Section of Corrosion of the State Design and Planning Scientific Research Institute of Off-Shore Oil]. No personalities are mentioned. There are 151 references: 141 Soviet, 8 English, and 2 German.

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S/095/60/000/009/001/005  
A/053/A026

AUTHORS: Negreyev, V.F.; Trifel', M.S.; Khanlarova, A.G.; Mekhmandarov, S.A.; Znaychenko, S.G.; Mugbilov, M.F.

TITLE: Experience Gained from the Use of Plastic Covers

PERIODICAL: Stroitel'stvo truboprovodov, 1960, No. 9, pp. 9 - 13

TEXT: For the protection of underground pipes polyethylene and polyvinyl chloride plastics have been employed. They must be applied in thick layers to be effective. The Institute Gipromorneft' has developed in 1958 a cover made from polyamide tape PK-4 (PK-4) which has been tested in practice by Azneftezavodstroy Trust on the main pipeline Karadag - Severnaya GRS in 1959 and by Zakpromstroy Trust on the gas-distributing network in the city of Sumgait. In both instances tests were carried out in highly-aggressive soil. Pipelines were provided with both plastic covers and electro-chemical protection, while arrangements for inspection at various points were also made. Results of tests with various kinds of cement and methods of application are shown in Tables 1 and 2. Poor adhesion occurred from layers of cement being too thin or in the event of cements being made with volatile solvents. This causes the formation of blisters and hollow

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Experience Gained From the Use of Plastic Covers

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A053/A026

places under the cover, into which moisture is being drawn, resulting in corrosion of the metal. In the case of polyisobutylene cement the durability of the tape suffers under the effect of aromatic hydrocarbons. The strength of the tape improves upon application of cement made from petrolatum, the reason for the improvement being a reorientation of the molecules. If using thick layers (up to 1 mm) of gun oil, the cover remains unchanged for a long time. The tape retains its elasticity and other mechanical properties; there are also no traces of corrosion on the metal. Photo 1 and 2 show to what extent cover and pipe metal have been preserved after having been kept a year and a half in saline soil. Specific resistance of the cover, as can be seen from Table 1 after 2 years of service, is 12,000 to 180,000 ohms. Various kinds of cement on a resin or oil product base, can be used for attaching plastics to pipes or fastening tape together. It is important that the cement retains its initial properties and does not change its structure after some time; it also should not contain any solvents (especially no aromatic ones) liable to cause swelling under the tape. Viscosity of the cement should be sufficient to prevent the tape from detaching itself from the metal. Petrolatum with a small addition of rubber makes a good cement. The prime coat should always be followed by a layer of lubricant 1 mm thick. Experience shows that plastic covers result in an economy of 11.5 - 13% in cost of material, while



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Experience Gained From the Use of Plastic Covers

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A053/A026

increasing labor efficiency. Combined methods are considered, using bitumen prime coating, followed by a thin layer of petrolatum cement, over which 2 layers of plastic tape are applied with 4 cm overlapping. The work in question can be done on the site or part of it in the workshop. The machine *ММА-1* (IML-1) used for mechanized work on the site for making bitumen covers can easily be adapted to applying petrolatum cement and plastic tape. On leaving the insulating machine the finished insulated pipeline section is lowered into the trench. The rules of Gosstroy USSR so far do not provide for the making of plastic covers. There are 2 photographs, 3 tables and 7 references: 6 Soviet, 1 English.



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S/193/60/000/010/014/015  
A004/A001

AUTHORS: Trifel', M. S., Nuriyev, M. R. 18

TITLE: Electrochemical Corrosion Protection of Ship Hulls

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 10,  
pp. 60-61

TEXT: The author reports on investigation results obtained by Gipromorneft' during protracted tests concerning the protection from corrosion of ship hulls by way of cathodepolarization. It was found that, irrespective of the surface state of the ship, a negative potential of  $-0.85$  v (relative to the copper sulfate electrode) will completely stop corrosion. The protective effect is explained by the fact that by superimposing d-c current of more than  $0.15$  a/m<sup>2</sup>, the anodes on the steel surface turn into cathodes, owing to which the metal stops dissolving on these anodic surfaces. At the same time calcium and magnesium salts are deposited on the cathodes which form an uninterrupted durable film protecting the metal in the course of a considerable time after the protection has been switched off. This sort of protection is carried out by Gipromorneft' together with the Caspian Tanker Fleet. Both external current sources (cathode protection) and the

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Electrochemical Corrosion Protection of Ship Hulls

5/193/60/000/010/014/015  
A004/A001

chemical energy of couples, the anode of which is a protector component of magnesium alloys, are employed. In both cases the installation operates according to the same principle, i. e. the hull is protected by dissolving the special anodes or protectors sunk into the medium surrounding the hull. Protectors are explosion-proof d-c sources of small power which do not require extraneous supply from the ship's network, so that corrosion protection can be carried out even on ships without own electricity system. Protectors may not only be fitted to the hull surface but also in the holds of tankers to protect also the inner surfaces from corrosion. The protector is a cylindrical hemispherical or disk-shaped casting of magnesium alloy with a poured-in core for the contact between the protector and the hull. One protector is put on 20-30 m<sup>2</sup> of surface being protected, while one anode is fitted on 50 - 200 m<sup>2</sup> of hull surface. If the electrochemical protection acts permanently, the current density may be lowered gradually as the cathodic film accumulates. An analysis of the protective effect on ships showed that a cathode potential is fast produced over the whole hull surface and, under the effect of cathode deposits, settles in the range of 0.95 - 1 v relative to the copper sulfate electrode. Ordinary voltmeters are used for measurements, the positive pole of which is connected to the copper sulfate electrode immersed in the water. Investigations showed that within the first

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Electrochemical Corrosion Protection of Ship Hulls

S/193/60/000/010/014/015  
A004/A001

days after the protection has been switched on corrosion is reduced to 0.05 mm/  
year, then practically stops completely. There is 1 figure.

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TRIFEL', M.S.; SHAKOV, V.I.

Determination of the parameters of cathodic protection.  
Gaz.prom. 5 no.1:48-54 Ja '60. (MIRA 13:4)  
(Gas, Natural--Pipelines) (Corrosion and anticorrosives)

AKHVERDIYEV, G.I.; TRIFEL', M.S.

Protecting the underground utilities of cities from corrosion.  
Gaz. prom. 8 no.2:43-46 '63. (MIRA 17:8)

ACC NR: AP7007062

SOURCE CODE: UR/0365/66/002/003/0375/0375

AUTHOR: Trifel', M. S.; Glikshateyn, Ye. D.

ORG: none

TITLE: Conference on the protection of hydrotechnical installations in fresh waters from corrosion

SOURCE: Zashchita metallov, v. 2, no. 3, 1966, 375

TOPIC TAGS: corrosion resistance, corrosion protection, scientific conference, corrosion rate, corrosion inhibitor, surface active agent, protective coating, hydroelectric power plant

SUB CODE: 11

ABSTRACT: The VSNTO (All-Union Council of Scientific and Technical Societies), AzSNTO (Azerbaijan Council of Scientific and Technical Societies), the "Gidromorneft" institute and the Volga GES (Hydroelectric Power Station) imeni V. I. Lenin held an interdepartmental scientific and technical conference to generalize domestic experience on the protection of the metals in hydrotechnical installations in fresh waters from corrosion. This conference was held in Baku on 16-20 November 1965.

Corrosion of hydrotechnical installations is most intensive in the underwater zone and has a periodic character, sharply dying out in winter but intensifying in summer. The average corrosion rate of metal specimens at the Volga GES reaches 0.4 mm/year but in corrosion pits it amounts to 2.53 mm/year.

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ACC NR: AP7007062

A unique method providing the most effective prevention of corrosion in underwater zone and not requiring systematic repainting is electrochemical protection. Ye. P. Shtern and V. F. Shabaldina (Volga GES) presented the results of the two-year operation of cathodic protection which indicated the exceedingly high effectiveness of this method.

Data were presented on new paint materials which permit a considerable increase in protection with the aid of coatings; results were presented on the studies of the mechanism of action and the effectiveness of operation of zinc-containing protective paints and paints which have special inhibitors and surface-active agents in their composition and can be applied on wet metal surfaces.

Questions of the possibility of preventing cavitation corrosion failures of turbine blades and finishes by using new cavitation steels as well as with the aid of electrochemical protection were discussed in detail.

A developing program of works in the introduction of highly effective methods of corrosion protection in the operation of hydrotechnical installations was outlined in a conference resolution adopted jointly with representatives of the Ministry of Power Engineering and Electrification USSR and other interested departments. [JPRS: 36,902]

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(N) L 8330-66 EWT(m)/EWP(j)/EWP(b)/T/EWP(t) RM/WW/WB/JD

ACC NR: AP5025766

SOURCE CODE: UR/0286/65/000/018/0154/0154

AUTHORS: <sup>44,5</sup> Trifel', M. S.; <sup>44,5</sup> Khandarova, A. G.; <sup>44,5</sup> Mekhmandarova, S. A.; <sup>44,5</sup> Shtern, Ye. P.

ORG: none

TITLE: Method for protecting parts of hydromachinery, for example, blades of ship propellers or hydroturbine wheels, from corrosion-cavitation damage. Class 48, No. 164181

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 154

TOPIC TAGS: hydromachinery, corrosion protection, cavitation damage, corrosion damage, MARINE EQUIPMENT, MARINE ENGINEERING

ABSTRACT: This Author Certificate presents a method for protecting parts of hydromachinery, e.g., blades of ship propellers or hydroturbine wheels, from corrosion-cavitation damage by protective painting or cathodic polarization. To increase corrosion-cavitation resistance, protection is provided by simultaneous use of cathodic polarization from a constant voltage source and by protective painting of steel parts with zinc paint, for example.

SUB CODE: 13/ SUBM DATE: 02Nov63

jw

Card 1/1

UDC: 620.197.5/.6

TRIFEL', M.S.; MEKHMANDAROV, S.A.; DANILYAK, B.M.

Cathodic protection of steel structures in seawater by means of pulsating currents. Gaz. delo no.9:31-34 '63.

Behavior of steel in seawater in the polarization of alternating and pulse currents. Ibid.:34-36

(MIRA 17:12)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy dlya dobychi nefi s morskogo dna.

TRIFEL', M.S.; SHCHEGOL', Sh.S.; MAZO, R.E.; ZLATKIN, B.S.

Cathodic protection of heat exchangers cooled by sea water.  
Zashch. met. 1 no.2:245-246 Mr-Ap '65.

(MIRA 18:6)

1. Sungaitskiy zavod sinteticheskogo kauchuka.

... CORROSION RESISTANT STEEL-ALUMINUM WIRE, Class 21, No. 170094

SUBMITTED: 10Dec62

ENCL: 00

SUB CODE: TE MM

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KULIYEV, I.P., doktor tekhn.nauk, prof., laureat Leninskoy premii;  
NEGREYEV, V.F., doktor tekhn.nauk, prof., laureat Leninskoy premii;  
TRIFEL', M.S., kand.tekhn.nauk; KHANLAROVA, A.G., kand.khim.nauk;  
GADZHIYEVA, R.G., kand.khim.nauk

New monographs on the corrosion of metals. Azerb.neft.khoz. (MIRA 16:2)  
41 no.4:48 Ap '62. (Corrosion and anticorrosives)

NEGREYEV, V.F.; TRIFEL', M.S.; NURIYEV, M.R.

Electrochemical protection against corrosion of the hulls of  
~~seagoing~~ vessels. Azerb.khim.zhur. no.3:115-112 '60. (MIRA 14:8)  
(Ships--Corrosion)

MEGREYEV, V.F.; ALLAHVERDIYEV, G.A.; TRIPEL', M.S.

Protection of underground pipelines by means of plastic  
strips. Azerb.kim.zhur. no.4:83-88 '60. (MIRA 14:8)  
(Pipelines) (Protective coatings)

S/123/61/000/022/024/024  
A004/A101

AUTHOR: Trifel', M.

TITLE: Effective means to prevent corrosion

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 22, 1961, 38, abstract  
22L239 ("Morsk. flot", 1961, no. 7, 27 - 28)

TEXT: The author analyzes the up-to-date means of fighting metal corrosion, exhibited on the thematic exhibition organized by VDNKh SSSR. The exhibition generalizes the experience accumulated in many fields of the national economy, the application of which in navigation makes it possible to prolong the service life of ships and port equipment and cut the costs in connection with maritime navigation. To protect the underwater and surface parts of ship's hulls from corrosion, it is recommended to use paints and enamels on the base of epoxy resins and ethinol varnish: АИИИ (AISH) phenolformaldehyde paints, ЯН-7А (YaN-7A) high-durable mastie, anticorrosion coatings developed by TsNIIMF on the base of epoxy resins reinforced by glass fabric, a composition from nitrile caoutchouc and ВДУ (VDU) resin ["Elastomer"]. Exhibits from plastics having a high resistance to sea water were shown, as well as compositions from plastics and graphite powder.

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Effective means to prevent corrosion

S/123/61/000/022/024/024  
A004/A101

The exhibition generalized the experience of preventing corrosion by electrochemical methods and protecting water and ballast tanks by deposition of lime films. Works were exhibited to produce new steel grades, containing titanium, and low-alloyed steel grades containing chromium, nickel and copper additions, which were highly corrosion-resistant. New methods of metal protection were shown: preserving the metal with inhibitors and by thermal diffusion galvanization, which makes it possible to obtain a strong protective coating. The exhibition showed a wide range of high-efficiency assemblies and measuring devices for checking the state and technology of applying coatings and various implements to clear metal from scale and rust.

V. Iskander

[Abstracter's note: Complete translation]

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S/123/61/000/011/017/034  
A004/A101

AUTHORS: Negreyev, V. F.; Allakhverdiyev, G. A.; Trifel', M. S.  
TITLE: Investigating the protection of underground pipelines by plastic tapes

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1961, 81, abstract 11B643 ("Azerb. khim. zh.", 1960, no. 4, 83-88, Azerbaijan summary)

TEXT: The authors present the results of investigating the service life of polyamide, polyvinyl chloride and polyethylene tape under laboratory and field conditions (on pipelines). The obtained data showed the efficacy of protecting pipelines by polyamide and polyvinyl chloride tape in moist alkaline soil. It is shown that coatings from these plastics should be applied with the aid of glues and mastics which do not require any heating or melting under field conditions. The glues and mastics should not contain any volatile solvents reducing the mechanical strength of the plastic tape. ✓

[Abstracter's note: Complete translation]

N. Savina

Card 1/1

TRIFEL', M.S.; SHAKOV, V.I.

Criterion for determining the corrosive action of soils. Gaz.  
prom. 6 no.4:32-36 '61. (MIRA 14:3)  
(Pipelines--Cathodic protection)

TRIFFAJ, M.

SCIENCE

Periodicals: CESKOSLOVENSKY CASOPIS PRO FYSIKU Vol. 8, no. 6, 1958

TRIFFAJ, M. Diffusion of excitation energy in molecular crystals. p. 633.

Monthly List of EastEuropean Accessions (EEAI).LC, Vol. 8, No. 5,  
May 1959, Unclass.

TRIFEL', MARK SOLOMONOVICH

ALIYEV, Kyamal Ali ogly; TRIFEL', Mark Solomonovich; NEGRNYEV, V.F.,  
professor, doktor tekhnicheskikh nauk, redaktor; SHTEYNGEL', A.S.,  
redaktor izdatel'stva

[Protection and operation of gas networks] Zashchita i ekspluatatsia  
gazovykh setei. Baku, Azerbaidzhanskoe gos.izd-vo neftianoi i  
nauchno-tekhn.lit-ry, 1956. 493 p. (MLRA 10:9)  
(Gas distribution)

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TRIFEL', M. S.

ALIYEV, K.A.; TRIFEL', M.S.

Waste gumbrin covering as corrosion protection for gas pipelines.  
Gaz.prom. no.4:28-31 Ap '57. (MLRA 10:5)  
(Gumbrin) (Gas, Natural--Pipelines)  
(Electrolytic corrosion)

ALI-ZADE, G.M.; TRIFEL', N.G.; PERETS, S.A., red.; AVADEYEVA, V.,  
tekhn. red.

[Noise of production equipment in oil fields and measures  
for its control] Shum proizvodstvennogo oborudovaniia na  
neftiarykh promyslakh i meropriiatia po ego ogranicheniiu.  
Baku, Azerneshr, 1963. 85 p. (MIRA 17:4)

Nov 52

TRIFEL, N. G.

USSR/Medicine - Dermatitis

"The Prophylaxis of Dermatitis in the Use of Antinakipin," N. G. Trifel, Basin  
Sanitary-Epidemiological Station, Caspian Vodzdravotdel (Water Health Div?)  
Gig i San,<sup>17</sup> No 11, p 57

Describes the appearance in 1950, at the Infirmary of Skin Diseases, of numerous workers with skin afflictions on their hands. Cases of dermatitis, eczema, and refractory ulcerations were observed. Some cases had to be hospitalized. Investigation revealed that the affected workers had used hot water from a ship's boilers after this water had been treated with Antinakipin (a compound containing chromium salts, which is used to prevent corrosion and scale formation in boilers. After an order prohibiting the use of hot water from boilers treated with Antinakipin, no new cases of this condition were observed.

Source #264T34

TRIFEL', N. G.

Nikitin, Yu. M., Trifel', N. G., Datiyev, R. I., Contamination by industrial runoff waters of the aquatorium of Baku Bay, Sb. nauchn. robot. Basseyn. san.-epidemiol. st. Azvodzdrava, A erb. med. in-t (Collection of Scientific Works of the Basin Sanitary-Epidemiological Station of Azerbaydzhan Medical Institute), No 3, 1957, p 113-119; (RZhGeofiz 3/59-2430)

TRIFEL', N. G. Cand Med Sci -- (diss) "Sanitary-hygiene<sup>e</sup> evaluation of the working conditions on tankers." Baku, 1958. 18 pp (Azerbaijdzhan State Med Inst im Nariman Narimanov), 200 copies (KL, 14-58, 118)

TRIFESCU, G.

Measuring the fuel oil distribution of locomotives.

P. 24 (REVISTA DATORIA PARATE) (Bucaresti, Romania) Vol. 6, no. 1, Jan. 1958

EO: Monthly Index of East European Accessions (EEAI) LS Vol. 7, No. 5, 1958

TRIFILOV, R.I., kapitan meditsinskoy sluzhby

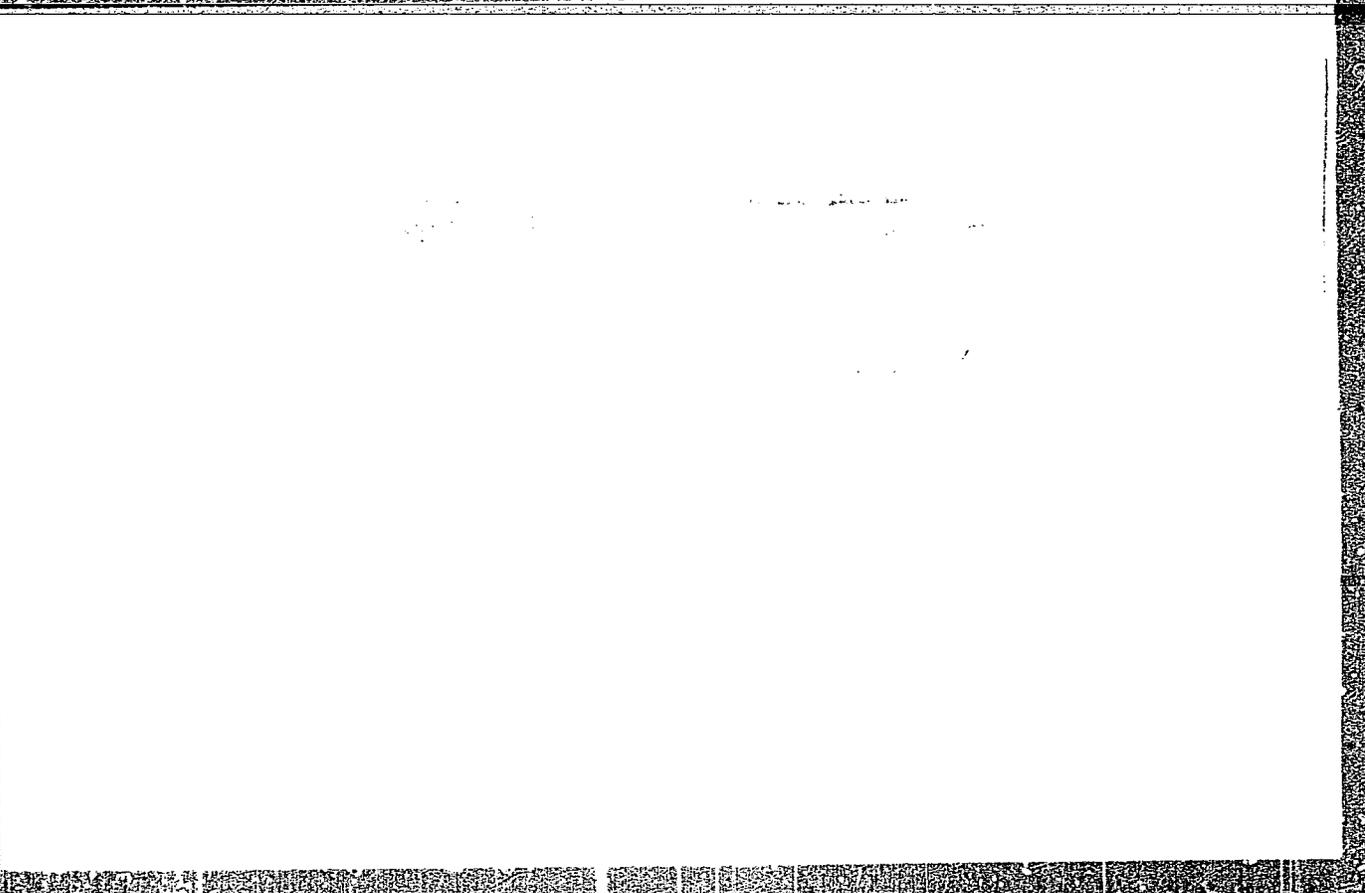
Device for the study of some psychic functions. Voen.-med.zhurn. no.9:

81 '64.

(MIRA 18:5)

**"APPROVED FOR RELEASE: 04/03/2001**

**CIA-RDP86-00513R001756610012-2**



**APPROVED FOR RELEASE: 04/03/2001**

**CIA-RDP86-00513R001756610012-2"**

TRIFIMOV, A.V.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Mineralogical and  
Geological Chemistry

*Geology*  
Isotopic composition of sulfur in meteorites and in terrestrial objects. A. V. Trifimov. Doklady Akad. Nauk S.S.S.R. 66, 181-4 (1949). — The av. isotopic compn. of S in meteorites is identical with that found on the earth.  $S^{32}:S^{33}:S^{34} = 100:0.80:4.60$ . C. H. Fuchsman

TRIFOMOV, G.K.; SHLYAPOSHNIKOV, M.S.

Testing of hexachlorane dust in dusting of rice field from the airplane. Med. parazit., Moskva no.1:24-25 Jan-Feb 1953. (CLML 24:4)

1. Of the Institute of Malaria and Medical Parasitology imeni S. M. Kirov of the Ministry of Public Health Azerbaydzhan SSR (Director of Institute -- Prof. P. P. Popov).

TRIFONENKOV, P., polkovnik, kand. filosof'skikh nauk

The most vital problem of the present and the adventurism of Chinese dogmatists. Komm. Vooruzh. Sil 4 no.21:23-29 N '63. (MIRA 17:1)

L 23717-66 EWT(m)/EWP(j)/T RM

ACC NR: AF6007118

SOURCE CODE: UR/0079/66/036/002/0345/0347

AUTHOR: Lobusevich, N. P.; Golubtsov, S. A.; Layner, D. I.; Malysheva, L. A.; Trofimova, I. V.

41  
B

ORG: none

TITLE: On the problem of promoters and poisons in the direct synthesis of methylchlorosilanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 2, 1966, 345-347

TOPIC TAGS: silane, bismuth, phosphorus, antimony, copper alloy, silicon alloy, zinc, *chemical decomposition*

ABSTRACT: The kinetics of the decomposition of  $Cu_3Si$  were studied during its reaction with methyl chloride in the presence of promoters (arsenic, phosphorus mixed with antimony and zinc) and contact poisons (bismuth and phosphorus). Addition of the most active promoters lowers the temperature at which the  $Cu_3Si$  alloy begins to react with methyl chloride from  $330^\circ$  to  $270^\circ C$  in the case of arsenic and from  $330^\circ$  to  $290^\circ C$  in the case of the phosphorus-antimony mixture. The activation energy of the reaction between  $Cu_3Si$  and methyl chloride decreases by one-half when these promoters are introduced. The action of the zinc promoter increases the reaction rate, but the activation energy remains practically unchanged. Apparently, elemental zinc converts into zinc chloride which accelerates the reaction of dimethyldichlorosilane formation. Ad-

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L 23717-66

ACC NR: AP6007118

dition of bismuth or phosphorus sharply inhibit the reaction of  $Cu_3Si$  with methyl chloride even at high temperatures ( $390^{\circ}C$ ). Orig. art. has: 1 figure.

SUB CODE: 07/

SUBM DATE: 01Dec64/

ORIG REF: 003/

OTH REF: 000

Card 2/2 *Handwritten initials*

L 22920-66 EWT(1)/EWT(14)/EWP(j)/EWA(h)/EWA(1) LJP(c) AE/PH  
ACC NR: AP6008112 SOURCE CODE: UR/0139/66/000/001/0085/0092

AUTHORS: Kopylov, Yu. A.; Trofimova, T. N.

ORG: Dnepropetrovsk Construction Engineering Institute  
(Dnepropetrovskiy inzhenerno-stroitel'skiy institut)

TITLE: Investigation of the influence of x-rays on the electric conductivity of liquid organic photoconductors

SOURCE: IVUZ. Fizika, no. 1, 1966, 85-92

TOPIC TAGS: electric conductivity, photoconductivity, organic semiconductor, x ray effect, ionization, semiconductor carrier, diethyl ether, halide, liquid property

ABSTRACT: The purpose of the investigation was to determine more accurately the character of the metastable electron attachment, which causes photoconductivity in liquid organic semiconductors based on diethyl ether into which halide-derivatives of benzene, methane, and other substances are introduced. To this end, the authors exposed the investigated liquids to x-radiation with maximum near a wavelength 1.5 Å, and measured the resistance of the liquid. The experi-

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L 22920-66

ACC NR: AP6008112

ments have shown that the resistance of the exposed cell increased by thousands of times, so that the conductivity of the cell itself could be neglected. The x-ray exposure did not influence the conductivity of diethyl ether, the halide substitutes of methane and their solutions in the diethyl ether. The conductivity of chlorobenzene and bromobenzene increased upon irradiation, and resumed the earlier value after the removal of the excitation. The results have shown that the only liquids whose conductivity changes as a result of exposure to the x-rays are those containing molecules with a benzene ring. On the basis of the assumption that the primary cause of the change in conductivity are Compton electrons, the variation of the conductivity under the influence of x-rays is compared with the variation of photoconductivity in these systems. It is concluded on the basis of this comparison that the electrons can become metastably fixed both to molecules of the halide derivatives of methane and benzene and to the molecules of the diethyl ether. Several models are proposed to explain these phenomena. While the variation of the resistivity under the influence of the exposure had a complex pattern, it was fully reproducible. The laws governing the photoconductivity and

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L 22920-66

ACC NR: AP6008112

the change in conductivity under x-ray exposure are interpreted from the point of view of the following mechanisms: ionization of molecules, production of carriers, carrier motion, carrier recombination. A kinetic equation is derived by a method proposed earlier (Izv. vuzov SSSR, Fizika, No. 2, 1965 and earlier), to take into account the simultaneous occurrence of all these processes. This equation is found to fit the experimental data. Orig. art. has: 4 figures and 8 formulas.

SUB CODE: 20/ SUBM DATE: 05May64/ ORIG REF: 009/ OTHER REF: 003

Card

3/3

TRIFONENKOV, Petr Ivanovich, , kand. filosof. nauk, dots., polkovnik;  
SLEDNEV, I.P., red.; CHAPAYEVA, R.I., tekhn. red.

[Basic laws governing the course and outcome of modern warfare] Ob osnovnykh zakonakh khoda i iskhoda sovremennoi voiny.  
Moskva, Voenizdat, 1962. 116 p. (MIRA 16:1)  
(War)

PHASE I BOOK EXPLOITATION

SOV/6433

Trifonenkov, Petr Ivanovich, Candidate of Physical Sciences, Docent,  
Colonel.

Ob osnovnykh zakonakh khoda i iskhoda sovremennoy voyny (Basic Laws  
on the Course and Outcome of Modern War) Moscow, Voenizdat,  
1962. 116 p. Errata slip inserted. 8000 copies printed.

Ed.: I.P. Slednev; Tech. Ed.: R.I. Chapayeva.

PURPOSE: This book is intended for officers, generals, and  
admirals.

COVERAGE: The author describes the philosophical considera-  
tions of the basic laws on the course and outcome of modern  
war, and expresses some personal points of view.

TABLE OF CONTENTS:

Introduction

3

Card 1/2

BAKALOV, I.L.; LALOVA, M.K.; TRIFONOV, A.; KOEN, R.

Observations on dysentery in infants. Suvrem. med., Sofia 5 no.7:  
58-71 1954.

1. Iz RNIP (direktor: dots. As.Fikov) I gradska detska bolnitsa,  
Sofia. (Gl. lekar: Buiuklieva) i RIEM (zam.-direktor po nauchnata  
chast: doktor po medin nauki D.Khadzhdimova)  
(DYSENTERY, BACILLARY, in infant and child,)

TRIFONOV, A.

"Moskva" outboard motor. Voen.znan. 32 no.10:14 0 '56.

(MLRA 10:2)

(Motorboats)

TRIPOLNY, A.

Icebreakers with atomic energy installation. 1. 91.

TRANSPORTNO DMLLO. Vol. 2, No. 1, 1956

Sofia, Bulgaria

So. East European Accessions List Vol. 5, No. 9 September, 1956

TRIFONOV, A., polkovnik; LOMAKIN, D., polkcvnik; ASTANIN, V., polkovnik;  
GAMANDIY, V., podpolkovnik

New tasks and obsolete methods. Voen. vest. 42 no.10:55-59 0 '62.  
(MIRA 15:10)

(Military education)

ИРИФАНОВ, А.

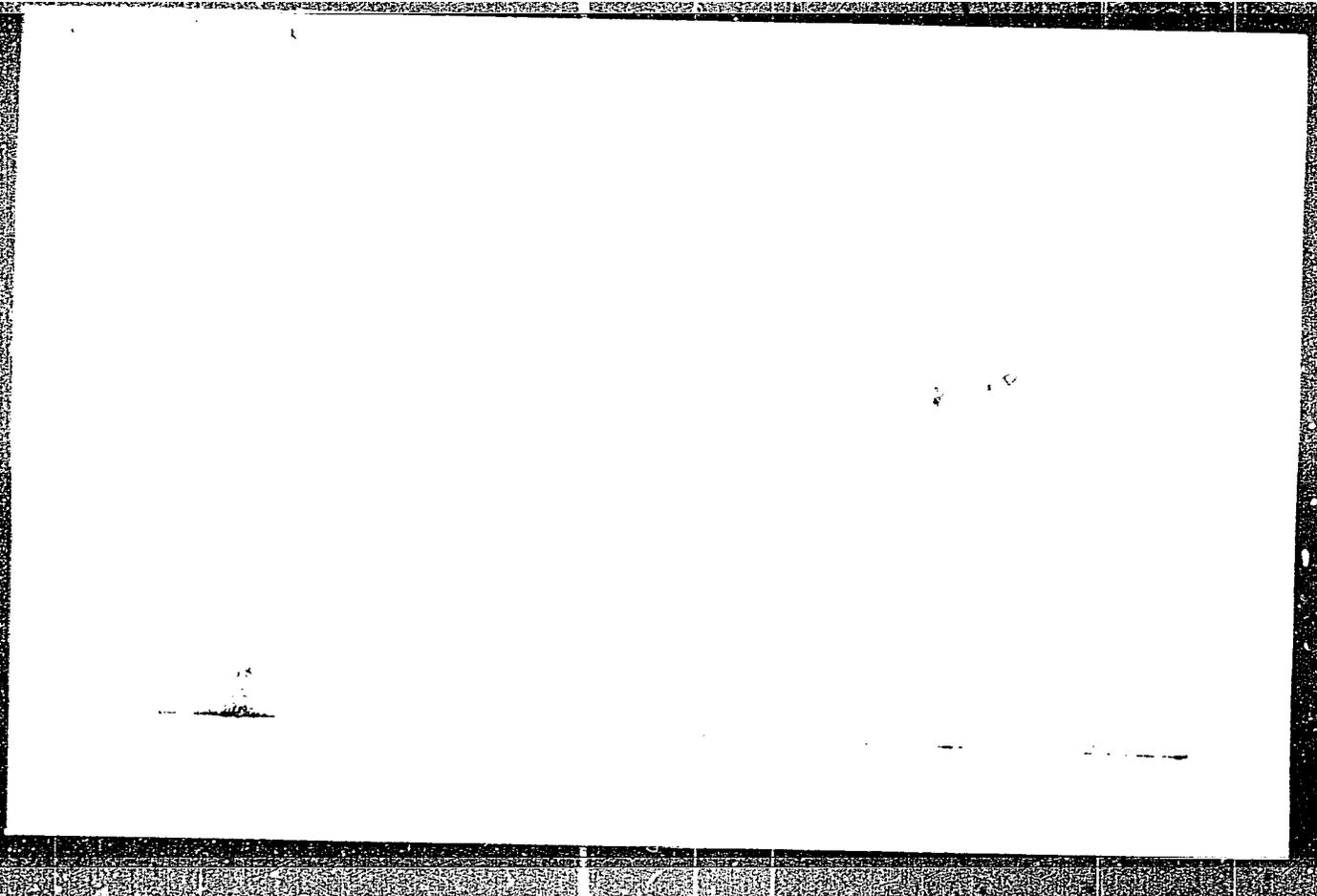
3

Effect of the walls of the container on the photochemical reaction  $H_2 + Cl_2$ . A. IRIFANOV. *Trans. State Phys.-Tech. Lab (Moscow) No. 14, 20-3R(1980); et. C. 1, 24, 1297.* -Expts. with 2 cylinders, of diam. 2.7 cm. and 1.4 cm., resp., show that the quantity of HCl formed at pressures > 30 mm. is the same in both vessels. It is regarded as proof that the disruption of reaction chains takes place in the space in this case. At pressures < 10 mm. the amts. of HCl formed are not equal and are proportional to the capacities of the containers or disruption of reaction chains takes place mostly on the surface of the walls. In the intervals between 30 and 10 mm. the disruption takes place in the space as well as on the walls. J. G. TOURIN

ABSTRACT OF INTERNATIONAL LITERATURE CLASSIFICATION

TRICENT, A

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BULGARIA/Analytic Chemistry. Analysis of Inorganic  
Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77282.

Author : Kobarelova St., Trifonov As.  
Inst : Institute of Chemistry and Technology.  
Title : Polarographic Determination of Cobalt in Ores  
and Concentrates.

Orig Pub: Godishnik Khim.-tekhrol. in-t, 1956 (1957), No 1,  
261-270.

Abstract: A polarographic method including the preliminary  
precipitation of  $Fe^{3+}$  in the shape of  $Fe(OH)_3$   
from pyridine buffer medium, the wave of  $Fe^{3+}$   
preceding the reduction wave of  $Co^{3+}$ , was  
applied to the determination of Co in ores and  
concentrates. A sample of the ore to be ana-

Card : 1/3

BULGARIA/Analytic Chemistry. Analysis of Inorganic  
Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77282.

lyzed is treated with concentrated hydrochloric acid (10 ml), heated 5 to 10 min., 5 ml. of concentrated HNO<sub>3</sub> is added, the mixture is evaporated to syrup consistency, 1 ml of 60%-ual HClO<sub>4</sub> and 2 ml of concentrated HCl are added, and the mixture is evaporated until dry. Water, 6 ml of concentrated HCl and 16 ml of pyridine are added to the dry residue, and the solution is diluted with water to 100 ml (pH of the solution will be about 6.4). 1 ml of 1%-ual gelatin solution is added to 10 ml of the prepared solution, it is diluted to 25 ml with 0.5 M solution of tri-sodium salt of ethylenediaminetetraacetic acid, about 1 g of solid PbO<sub>2</sub> is introduced, the mixture is

Card : 2/3

76

TRIFONOV, A.

Polarographic behavior of sulfide ions.

p. 21 (Izvestiia) Vol. 4, 1956. Sofia, Bulgaria.

SO: Monthly Index of East European Accessions (EEAI) LC, vol. 7, No. 1, Jan. 1958

TRIFONOV, A.; ELENKOVA, N.

Polarographic investigation of arsenic (III) complex with tartaric acid.

p. 35 (Izvestiia) Vol. 4, 1956. Sofia, Bulgaria.

SO: Monthly Index of East European Accessions (MEAI) LC, Vol. 7, No. 1, Jan. 1958

Mercury electrode with dropping regulated by gas bubbles. *A. Ilonov, Bulg. Akad. Nauk Izest. Khim. Inst. 4, 379-38 (1958).*—Mechanism of transport of dissolved compounds to the surface of an electrode was studied with  $10^{-3}M$   $CdSO_4$  solution in  $0.1M$   $K_2SO_4$  by plotting curves for log current vs. log time. For drop times of 0.7–1.2 sec. the slopes had an approx. const. value =  $2/3$ ; for larger drop times the slope =  $1/4$  and there were kinks in the curves. Thus mol. transport predominated over convection transport. The type of curve in kinetic currents was independent of the nature of the transport. *N. Boredjick*

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Bulgaria/ Physical Chemistry - Electrochemistry

B-12

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11377

Author : Heyrovsky J., Trifonow A.

Inst : Bulgarian Academy of Sciences

Title : Concerning the Nature of Polarographic Maxima on Anodic Dissolution of Mercury in Alkaline Medium

Orig Pub : Ueber die Natur der polarographischen anodischen Maxima in alkalischer Loesung.

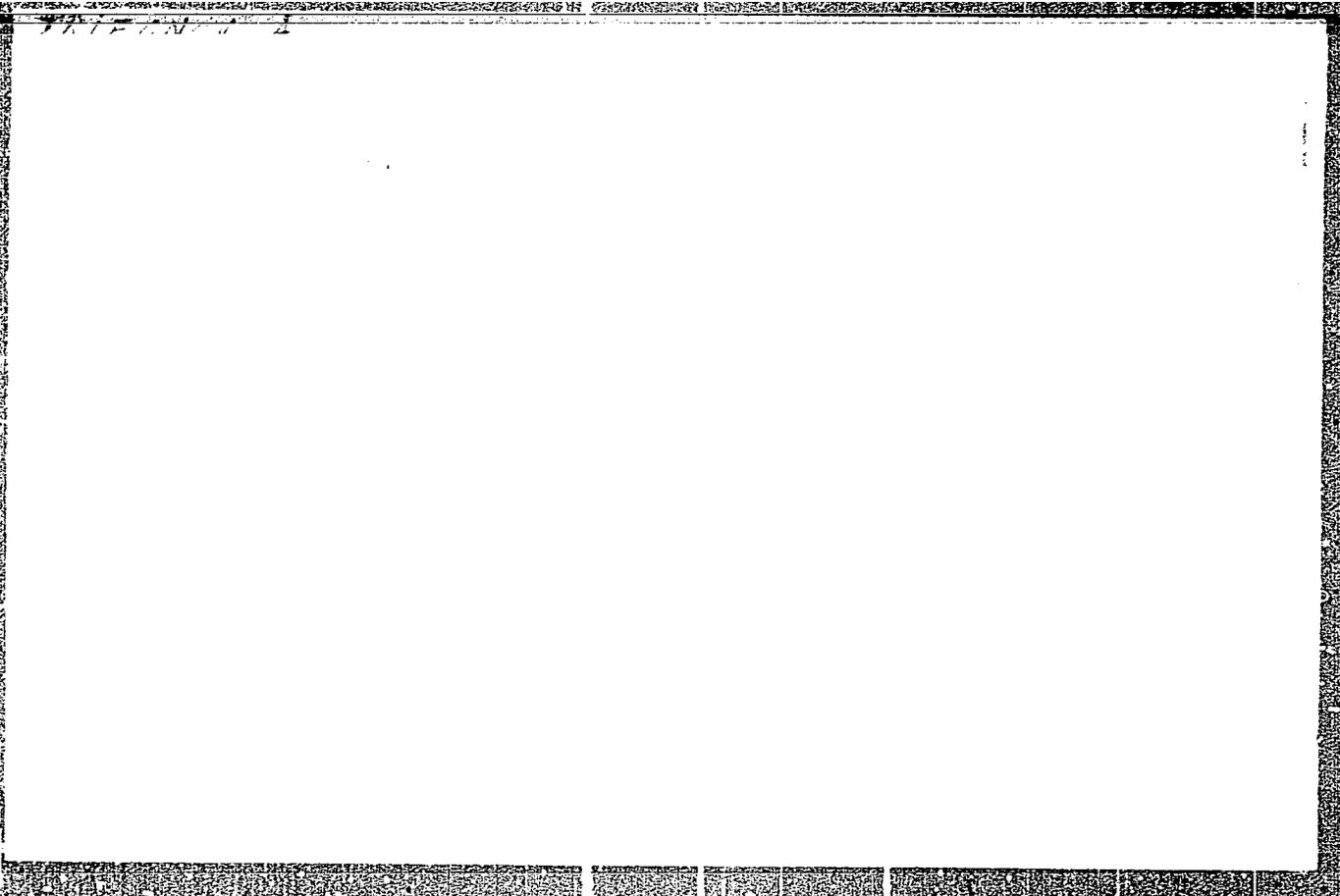
Dokl. Bolgar. AN, 1956, 9, No 1, 7-9 (German; Russian summary)

Abstract : See RZhKhim, 1956, 15728

1/1

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**CIA-RDP86-00513R001756610012-2"**

TRIFONOV, A.

Germany/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61190

Author: Trifonov, A., Yelenkova, N.

Institution: None

Title: Polarographic Investigation of the Complex of As(3) with Tartaric Acid

Original

Periodical: Polarographische Untersuchung des Arsen (III) Komplexes mit der Weinsaeure, Z. phys. chem. (DDR), 1956, 205, No 3, 123-137; German

Abstract: Investigation of polarographic reduction of the complex of  $H_3AsO_3$  (I) with tartaric acid (II) having the assumed composition  $M(AsO)C_4H_4O_6$  (III) where  $M = Na^+, K^+$  or  $NH_4^+$ . With  $Na_2SO_4$  ( $\sim 0.1$  M) background were obtained well defined limit currents ( $I_1$ ) proportional to the concentration of III ( $C_3$ ) in the  $C_3$  interval  $10^{-4} - 10^{-2}$  M, linearly depending on  $\sqrt{h}$  and having a temperature coefficient  $\sim 2\%$ .  $E_{1/2}$  depends on  $C_3$  and temperature. At constant concentration of I ( $C_1$ ) and increasing concentration of II ( $C_2$ ),

Card 1/2

Germany/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61190

Abstract:  $I_1$  increases if  $C_2 < C_1$  (in ekv). With  $C_2 \gg C_1$   $I_1 = \text{const}$ . With  $C_2 > C_1$  there appear second ( $I_2$ ) and third ( $I_3$ ) waves. With increasing  $C_2$   $I_2$  increases at first and thereafter reaches a constant value.  $I_3$  increases with  $C_2$  and decrease of  $C_1$ . With  $C_2 \gg C_1$  the polarographic curves show sharp maxima the heights of which are proportional to  $C_1$ . It is assumed that  $I_1$  is determined by reduction of III, during which H ions are consumed in amount proportional to  $C_3$ ;  $I_2$  is associated with emission of hydrogen, catalyzed by As, formed on reduction of III;  $I_3$  is due to reduction of  $H^+$  ions, formed on dissociation of II and not used up in the first 2 processes. According to equation of Il'kovich it was found that in the reaction take part 3 electrons. A scheme is given of the reduction of III. It is reported that waves suitable for analytical purposes are also obtained with a background of KCl,  $KNO_3$ , and  $CaCl_2$ . With  $NH_3 + NH_4Cl$  background at pH 8.3-10.7 only one wave is formed the height of which is proportional to  $C_1$ .

Card 2/2

BULGARIA/Chemistry of High Molecular Substances.

I

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72816.

Author : As. Trifonov, Iv. Panayotov.

Inst : Chemical Institute of Academy of Sciences of Bulgaria.

Title : Upon the Kinetics of Photopolymerization of  $\alpha$  -  
Vinylfuran.

Orig Pub: Izv. khim. in-t B"lg. AN, 1957, 5, 433-451.

Abstract: The kinetics of photopolymerization of  $\alpha$  -vinyl-  
furan (I) in the absence and the presence of  $O_2$   
was studied by the refractometrical method. In the  
absence of  $O_2$ , polymerization proceeds without any  
induction period and at a gradually increasing  
rate; the reaction rate is proportional to the  
square root of the light intensity. The produced  
polymer is a light-yellow mass, which is nearly

Card : 1/2

BULGARIA/Chemistry of High Molecular Substances.

I

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72817.

Author : A. Trifonov, I. Panayotov.

Inst : Academy of Sciences of Bulgaria.

Title : Upon the Kinetics of Polymerization of  $\alpha$ -Vinylfuran.  
I. Photopolymerization in Absence of Oxygen. II. Photo-  
polymerization in Presence of Oxygen.

Orig Pub: Dokl. Bolg. AN, 1957, 10, No 4, 301-304; No 5, 363-366.

Abstract: See the foregoing abstract.

Card : 1/1

TIMUSHEV, A., (Komi ASSR, Ust'-Kulomskiy rayon, s. Kerchem'ya); Sonin, I., (Irkutsk); LAPICHEV, G. (Pos. Yanovo, Smolenskaya obl.); BYKOV, F. (Rogachevskiy rayon, Gomel'skaya obl.); DANILOV, M., (Moskva); CHUMAKOV, V. (S. Orlovka, Frunzenskaya obl.); NOVIKOV, V. (Sempalatinsk); TRIFONOV, A. (Yegor'yevskiy rayon, Moskovskaya obl.); NOVOSIL'TSEV, V. (Debal'tsevo, Stalinskaya obl.); MUNASYKOV, N. (Krasnoye, L'vovskaya obl.)

Letters to the editor. Sov.foto 18 no.11:83-85 N 158.

(MIRA 11:12)

(Photography)

TRIFONOV, A.A.

Universal boring mandrel. Mashinostroitel' no.4:23 Ap '63.  
(MIRA 16:5)  
(Drilling and boring machinery)

TRIFONOV, Avram P., inzh.

Hot mineral waters along the Black Sea coast, and prospects  
of their utilization. Khidrotekh i melior 7 no.6:186-188  
'62.

VECHER, N.A., inzh.; GERMAIDZE, G. Ye., inzh.; PANFILOV, M.I., dotsent;  
KHIL'KO, M.M., inzh.; MERSHCHIY, N.P., inzh.; ALFEROV, K.S., inzh.;  
ANTONOV, S.P.; DIKSHTEYN, Ye.I.; YAGNYUK, M.I.; BELIKOV, K.N.;  
GONCHAREYSKIY, Ya.A.; TRIFONOV, A.G.; SEDACH, G.A.

"Open-hearth plants with large-capacity furnaces" by D.A. Smoliarenko,  
N.I. Efanova. Reviewed by N.A. Vecher and others. Stal' 21 no.2:125-126  
F '61. (MIRA 14:3)

1. Sverdlovskiy sovet narodnogo khozyaystva (for Vecher, Germaidze, Pan-  
filov).

(Open-hearth furnaces—Design and construction)  
(Smoliarenko, D.A.) (Efanova, N.I.)

VORONOV, F.D.; TRIFONOV, A.G.; SNEGIREV, Yu.B.; VAL'PITER, E.V.

Operation of Magnitogorsk Metallurgical Combine open-hearth  
furnaces on natural gas. Stal' 22 no.8:701-704 Ag '62.  
(MIRA 15:7)

1. Magnitogorskiy metallurgicheskiy kombinat.  
(Magnitogorsk--Open-hearth furnaces)  
(Gas, Natural)

VORONOV, F.D.; TRIFONOV, A.G.; KHUSID, S.Ye.; DIKSHTEYN, Ye.I.; VAL'PITER, E.V.  
SNEGIREV, Yu.B.; ANTIPIIN, V.G.; Prinimali uchastiye: SMIRNOV, L.A.;  
KAZAKOV, A.I.; YELIZAROV, A.G.; KULAKOV, A.M.; KOZHANOV, M.G.;  
ZARZHITSKIY, Yu.A.; ARTAMONOV, M.P.; GOL'DENBERG, I.B.; ROMANOV,  
V.M.; NOVIKOV, S.M.; MAYEVSKIY, A.B.; DMITRIYEV, I.; MANZHULA, M.;  
BEREZOVOY, I.A.; ZUTS, K.A.; RADIN, S.N.; TATARINTSEV, G.;  
MITROFANOV, N.G.; GAVRILOVA, K.M.; IVANOV, N.I.

Operating a 400-ton open-hearth furnace on casing-head gas.  
Stal' 20 no. 7:594-598 JI '60. (MIRA 14:5)  
(Open-hearth furnaces--Equipment and supplies)

TRIFONOV, A.G.; SNEGIREV, Yu.B.; VAL'PITER, E.V.

Thermal conditions in the leading furnace of the Magnitogorsk  
Metallurgical Combine. Metallurg 8 no.9:16-21 S '63.

(MIRA 16:10)

1. Magnitogorskiy metallurgicheskiy kombinat.  
(Magnitogorsk--Open-hearth furnaces)  
(Heat--Transmission)

TRIFONOV, A.I.

Complex technology of the work of railroad stations and  
automotive transportation agencies. Zhel.dor.transp. 46  
no.12:62-64 D '64.

(MIRA 19:1)

1. Nachal'nik stantsii Moskva-Tovarnaya-Paveletskaya  
Moskovskoy zheleznoy dorogi.

TRIFONOV, A.P. (Irkutsk, ul. Lenina, dom 22, kv. 34)

Some data on traumatism in the coal industries of the capitalistic  
countries in recent years. Ortop., travm. i protez. 24 no.10:  
81-84 0 '63. (MIRA 17:5)

TRIFONOV, As.

Polarographic determination of germanium in solutions containing hydrogen peroxide. *Gidishnik khim tekhn* 8 no. 159-164 '61 [publ. '62].

TRIFONOV, A.; KOBARELOVA, St.

On some phenomena in separating cobalt on the dropping mercury electrode. II. Izv Inst khim BAN 7:133-144 '60.

(EEAI 10:9)

1. Khimicheski institut pri BAN i khimickotekhnologicheski institut v Sofia.

(Cobalt) (Electrodes, Dropping mercury)

TRIFONOV, As.; VITANOV, T.

Investigating the complexes of Fe(III) with lactic acid in water solutions. Izv Inst khim BAN 7:309-319 '60.

(EEAI 10:9)

1. Khimicheski institut pri BAN.

(Lactic acid) (Iron) (Water) (Solutions)

TRIFONOV, A.

Cooperation. Mest.prom.i khud.promys. 2 no.4:5-6 Ap '61.  
(MIRA 14:4)

(Agricultural machinery industry)

*Trifonov, A.*

AVDZHLEV, G.  
Surname (in case); Given Name

Country: Bulgaria

Academic Degree: not indicated

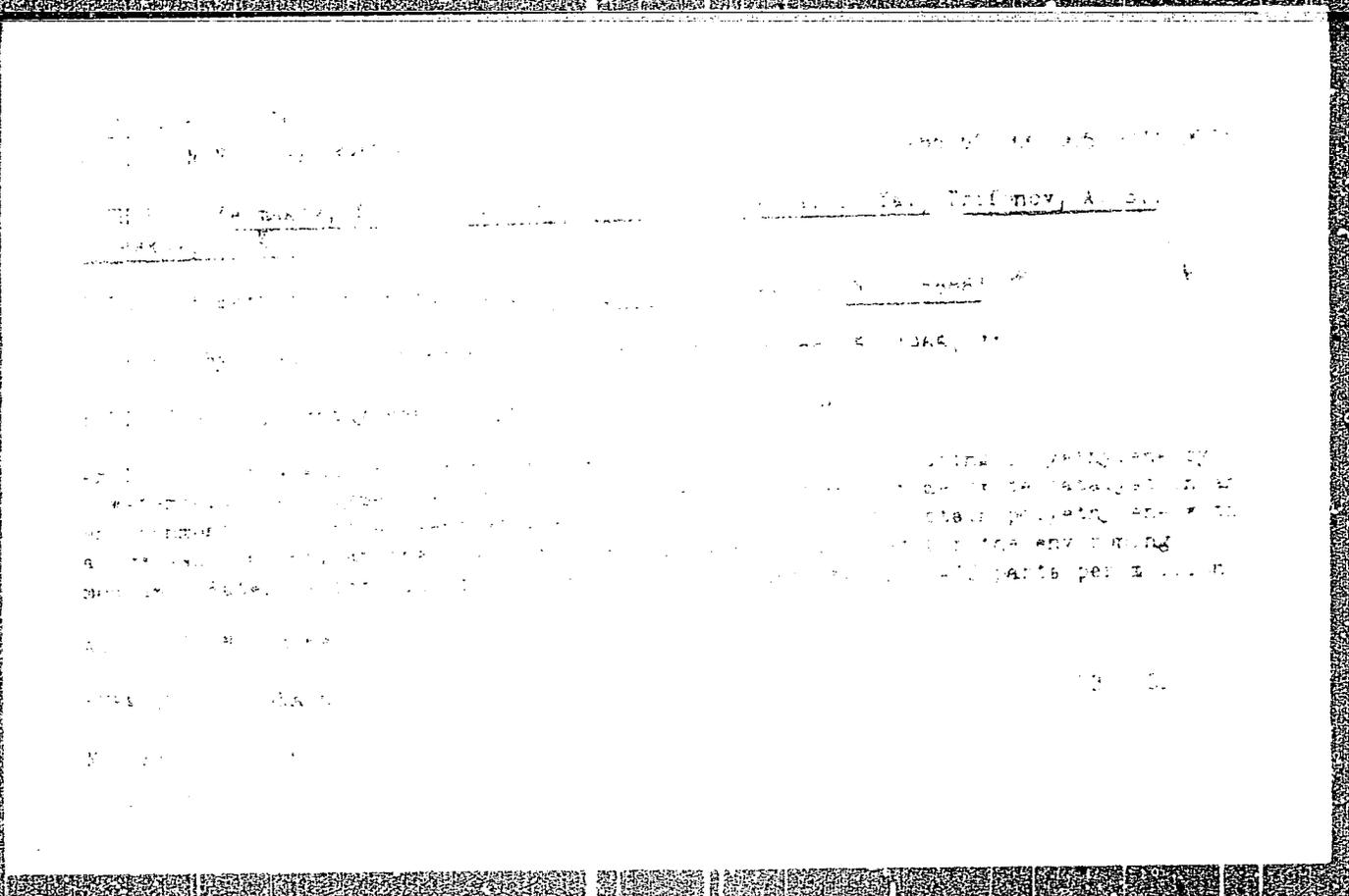
Affiliation: not indicated

Source: Sofia, *Khizna*, No 2, Mar/Apr 61, pp 15-19

Date: "Intestinal Bacterial Infection Problems in Bulgaria  
and Prospects for Their Solution."

Co-authors:

TRIFONOV, A. Sofia  
ATANASOVA, S. "  
KOEN, R. "  
PETEV, P. "



TRIFONOV, A.

Distr: 4E3b

7  
Polarographic study of the As(III)-tartaric acid complex.  
~~A. Trifonov and N. Blenkova, *Bulet. Akad. Nauk. SSSR. Khim. Ind.* 4, 35-51(1956) (Russian and German summaries).—Well-defined polarographic waves for As(III) were obtained by using the Na(AsO)<sub>2</sub>·H<sub>2</sub>O complex vs. the dropping Hg electrode, in aq. acid and alk. solus.~~

A. Madjem

4  
1-2 (NE)  
J-9

TRIFONOV, AS.

Distr: 4E2c

Some phenomena of the separation of cobalt at the dropping-mercury electrode. I. As. Trifonov and St. Kobarlova. *Bulgar. Akad. Nauk, Inst. Khim. Inst.* 6, 229-33 (1958).—The polarographic behavior of  $\text{Clns.}$  of  $\text{Co(II)}$  ions which contain  $\text{Co(III)}$  in an indifferent non-complex forming electrolyte is discussed. The diagrams of current-potential showed a 0.2 v. more pos. reduction potential than for  $\text{Co(II)} \rightarrow \text{Co}$ ; but there was no simple relation between its height and the  $\text{Co(III)}$  ion concn. The behavior of this anomalous stage was examd. in relation to the concn. of the indifferent electrolyte and the presence of surface-active substances, acids, and bases, as well as the relation with regard to addns. of metallic ions ( $\text{Tl}^+$ ,  $\text{Fe}^{++}$ ,  $\text{Ni}^{++}$ ,  $\text{Cu}^{++}$ ). The microscopic analysis of the surface of the dropping Hg revealed a dense pasty coating in the potential range which corresponded to the plateau of the anomalous stage. The diagrams of instantaneous current-time appeared also to be rather strange. It was assumed that the occurrence of the anomalous stage had some connection with the mechanism of the Co sepn. at the electrode, and with the formation of the film and its structure.

S. Pajalkoff

4  
1-577c.JD

COUNTRY : BULGARIA  
CATEGORY : Physical Chemistry. Electrochemistry B  
ABS. JOUR. : RZKhim., No. 1 1960, No. 620  
AUTHOR : Trifonov, A.; Kobarelova, S.  
INST. : Bulgarian AS, Chemical Institute  
TITLE : On Certain Phenomena in the Course of Separation of Cobalt on the Mercury Drop Electrode. I.  
ORIG. PUB. : Izv. Khim. in-t. B<sup>ulg.</sup> AN, 1958, 6, 229-233  
ABSTRACT : On polarograms of the reduction of the  $Co^{+2}$  ion on the Hg drop electrode in the presence of small quantities of  $Co^{+3}$  against a background of LiCl, KCl and  $BaCl_2$ , an anomalous wave (AW) is observed with a potential 0.2 v more positive than the wave of the reduction of  $Co^{+2}$  →  $Co$ . The height of AW increases with the dilution of the indifferent electrolyte and decreases according to a linear law with the

CARD: 1/3

COUNTRY : B  
CATEGORY :  
ABS. JOUR. : RZKhim., No. 1 1960, No.620  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : addition of HCl. With the addition of small  
cont'd quantities of  $Tl^+$ ,  $Fe^{+2}$ ,  $Cd^{+2}$  and  $Mn^{+2}$ , AW  
disappears; even in considerable concentrations,  
 $Cu^{+2}$  and  $Ni^{+2}$  have no effect on AW. The beh-  
vior of AW in the presence of NaOH and surface-  
active substances was investigated. With poten-  
tials corresponding to AW, the surface of the  
Hg drop is covered with a dense dull film. The  
curves (i, t) taken in the range of AW have an  
CARD: 2/3  
B-44

COUNTRY :  
CATEGORY : B

ABS. JOUR. : RZKhim., No. 1 1960, No. 620

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : unusual form. Evidently, the appearance of AW  
cont'd is connected with the formation of a layer of  
Co on the Hg electrode, and depends on its  
structure.-- Yu. Pleskov

CARD: 3/3

TRIFONOV, A.; HRYBOWSKY, J.

Polarographic maxima for anodic dissolution of mercury in an alkaline medium,  
p. 763.

CHECMICKE LISTY (Cheskoslovenska akademie ved. Ceskoslovenska spolecnost  
chemicks) Praha, Czechoslovakia. Vol. 49, no. 5, May 1955

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 1, Jan 1960  
Uncla.

9  
 /Polymerization of allyl  $\beta$ -furylacrylate by initiation. As-  
 sen Trifonov and Ivan M. Panajotov (Bulgarian Acad. Sci.  
 Bulg. Acad. Sci. *Chem. Acad. Sci. Hong.*, 18, 487-92 (1959) (in  
 German).—Allyl  $\beta$ -furylacrylate (I) was polymerized by  
 heating it with  $\text{Br}_2\text{O}_3$  (II) under N in sealed ampuls. Pro-  
 longed heating above 100° only darkened the monomer, but  
 at 200° about 15% C<sub>6</sub>H<sub>6</sub>-sol., and at 220°, about 85% insol.  
 polymer was formed. Since, at 220°, the degree of polymer  
 formation was almost independent of the concn. of II, the  
 reaction could not have been initiated by II. An interme-  
 diate (III) is formed; this is the true initiator, since I could be  
 polymerized by it at 150°. III, whose structure was not  
 detd., was prepd. by heating I with a large amt. of II (150  
 mg./ml.) at 150° under N. III was crystd. from MeOH at  
 -75°. III probably contained a C—O—OH group, as  
 shown by polarography and by infrared spectra. A spec-  
 trum of the polymer showed that little or no furan ring was  
 present; polymerization is mostly through the double bond  
 in the acid portion of I and, less so, through the allyl double  
 bond. The spectrum of the polymer formed without II was  
 very similar to that of the polymer formed with II.

Jerry March—

3 2 g (May)  
 4E2C (j)

TRIFONOV, A.; PANAIOTOV, I.

"Concerning the kinetics of the photopolymerization of  $\alpha$ -vinylfuran."

p.433 (Izvestiia, Vol. 5, 1957, Sofia, Bulgaria)

Monthly Index of East European Accessions (MEAI) LC, Vol. 7, No. 8, August 1958

TRIFONOV, A.

"Polymerization of allylfurfurylakrilats at initiation."

IZVESTIIA, Sofia, Bulgaria, Vol. 6, 1958.

Monthly List of East European Accessions Index (EEAI), The Library of Congress, Volume 8, No. 8, August 1959.

Unclassified

TRIFONOV, A.

"On some phenomena in separating cobalt on the dropping mercury electrode."

IZVESTIIA, Sofia, Bulgaria, Vol. 6, 1958.

Monthly List of East European Accessions Index (EEAI), The Library of Congress, Volume 8, No. 8, August 1959.

Unclassified